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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,343	04/14/2005	Koji Korechika	JP25004PCTUS	6308
21254 7590 06/21/2007 MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			EXAMINER ROCCA, JOSEPH M	
			ART UNIT 3616	PAPER NUMBER
			MAIL DATE 06/21/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,343

Applicant(s)

KORECHIKA, KOJI

Examiner

Joseph Rocca

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 16-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/22/05.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-15, drawn to an inflator bag, classified in class 280, subclass 743.1.
- II. Claims 16-23, drawn to a method for manufacturing an inflator bag, classified in class 53, subclass 399.

The inventions are distinct, each from the other because of the following reasons: (a) group 1 and 2 have different special technical features, namely group II utilizes the use of deforming a cross-section of a pipe, where the claims in group I, do not require this step and (b) Inventions I and II are related as process of making and product made.

The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the claims directed to group II may be used to make materially different products from that claimed in group 1, such as a bag that may be used for a number of other purposes other than an air bag.

2. During a telephone conversation with Sean McGinn on June 1, 2007 a provisional election was made without traverse to prosecute the invention of group 1, claims 1-13. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16-23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-3, 7, 9, and 12-13** are rejected under 35 U.S.C. 102(b) as being anticipated by Kowalski (U.S. 6,158,766). Kowalski discloses an inflator bag for a vehicle occupant restraining apparatus being able to expand and develop by a high-pressure gas filled in said inflator bag and is capable of restraining a vehicle occupant by being expanded and developed, comprising:

a. a box-shaped bag main body (Element 24) including gore portions (side portions of Element 24) on surrounding side faces to ensure its height, wherein, in each of said gore portions, a folded line to be folded toward an inside of said box-shaped bag main body is formed in an intermediate portion in a height direction of each of said gore portions (Fig. 5, Element 24), which is used to allow each of said gore portions to be folded, and wherein an overlaid and folded portion is formed in an end of each of said gore portions on each of said surrounding side faces (Figs. 1-5);

b. with each corner portion of said box-shaped bag main body being sandwiched between one surrounding side face and another surrounding side face adjacent to said one surrounding side face wherein each of said gore portions is folded in a overlaid manner in each of said overlaid and folded portions at a same time when another gore portion on another surrounding side face is folded (Fig. 2-3. and 5, Elements 14, 24), and

c. wherein said box-shaped bag main body is folded in a manner so as to be in a flat state when each of said gore portions is folded in a manner to form a valley line along said folded line (Figs 2 and 3).

With respect to **claim 2**, said box-shaped bag main body of Kowalski, is so constructed as to have a hermetically sealed structure by blocking a bottom face of said box-shaped bag main body (Element 24) being opposite to a ceiling plate (Element 26) with a bottom plate (Element 28; see also Col. 2, Lines 12-19).

Regarding **claim 3**, said box-shaped bag main body and said bottom plate of Kowalski are integrally formed (Figs. 2 and 3; Col. 2, Lines 12-19) in as much as the plate and main body form one unit after being sealed together as described in the specification (Col. 2, Lines 12-19).

With respect to **claim 7**, Kowalski additionally discloses an inflator bag (Element 14) for a vehicle occupant restraining apparatus being able to expand and develop by a high-pressure gas filled in said inflator bag and is capable of restraining a vehicle occupant by being expanded and developed, comprising: a hollow body (Element 24) being opened at its both sides and having a cross-sectional structure in which both

sides of said hollow body are dented in a U-shaped manner toward an inside of a tube-shaped body in one diameter direction out of two diameter directions (Fig. 3, Element 24) intersecting at right angles on said hollow body and both sides of said hollow body are crushed in a manner so as to be in a plane state in another diameter direction (Figs. 2 and 3, Element 14, wherein two plates (Elements 26 and 28) keep element 24 in a plane state in another diameter direction), and, wherein a bag main body is formed by blocking opened portions of said hollow body on both sides with end face plates (Col. 2, Lines 12-19 (discussing how plates are sealed to rest of element 24)) and said bag main body is crushed in a manner so as to be in a flat state on both sides in said another diameter direction (Figs. 2 and 3, Element 24).

Regarding **claim 9**, each of said end face plates of Kowalski includes a shrunk portion formed so as to be placed in an inside of said hollow body and to develop at a time when said hollow body is filled with said high-pressure gas (Figs. 2, 3, and 5 (sides of Element 24, before air bag is fully deployed)), in as much as the shrunk portion is defined by applicant.

With respect to **claim 12**, said box-shaped bag main body of Kowalski, comprises an angular-box shaped bag main body (Figs. 2-5, Element 24) note angles formed by sides and gore portions of element 24.

Regarding **claim 13**, said folded portion of Kowalski comprises a triangular folded portion (Figs. 2,3, and 5, folded portion of Element 24).

5. **Claims 1, 5, 7-8, and 14** are rejected under 35 U.S.C. 102(b) as being anticipated by Lindstrom (U.S. 5,568,938).

Lindstrom discloses an inflator bag for a vehicle occupant restraining apparatus being able to expand and develop by a high-pressure gas filled in said inflator bag and is capable of restraining a vehicle occupant by being expanded and developed, comprising:

- a. a box-shaped bag main body (Element 40) including gore portions (side portions) on surrounding side faces to ensure its height (see, Figs. 5 and 6), wherein, in each of said gore portions, a folded line to be folded toward an inside of said box-shaped bag main body is formed in an intermediate portion in a height direction of each of said gore portions (Figs 5 and 6) which is used to allow each of said gore portions to be folded, and wherein an overlaid and folded portion is formed in an end of each of said gore portions on each of said surrounding side faces (Fig. 2);
- b. with each corner portion of said box-shaped bag main body being sandwiched between one surrounding side face and another surrounding side face adjacent to said one surrounding side face wherein each of said gore portions is folded in a overlaid manner in each of said overlaid and folded portions at a same time when another gore portion on another surrounding side face is folded (Figs. 5 and 6), and
- c. wherein said box-shaped bag main body is folded in a manner so as to be in a flat state when each of said gore portions is folded in a manner to form a valley line along said folded line (Figs 5 and 6).

With respect to **claim 5**, said box-shaped main body, of Lindstrom has a rectangular cross-section whose longitudinal side is smaller than its horizontal side (Figs. 5 and 6), is so constructed that opening faces on both sides of a tube-shaped body are blocked with end face plates (Figs. 5 and 6, Elements 45 and 46) and side face plates serving as said longitudinal side of said tube-shaped body and said end face plates make up gore portions.

With respect to **claim 7**, Lindstrom discloses an inflator bag (Element 40) for a vehicle occupant restraining apparatus being able to expand and develop by a high-pressure gas filled in said inflator bag and is capable of restraining a vehicle occupant by being expanded and developed, comprising: a hollow body being opened at its both sides and having a cross-sectional structure in which both sides of said hollow body are dented in a U-shaped manner toward an inside of a tube-shaped body in one diameter direction out of two diameter directions (Figs 5 and 6) intersecting at right angles on said hollow body and both sides of said hollow body are crushed in a manner so as to be in a plane state in another diameter direction (Figs. 5 and 6), and, wherein a bag main body is formed by blocking opened portions of said hollow body on both sides with end face plates (Figs. 5 and 6, Elements 45 and 46 (end plates)) and said bag main body is crushed in a manner so as to be in a flat state on both sides in said another diameter direction (Figs. 2 and 3, Element 24).

With respect to **claim 8**, Lindstrom additionally discloses that by denting, in a U-shaped manner, portions on both sides of said tube-shaped body toward its inside portions in one diameter direction out of two diameter directions intersecting at right

angles on said tube-shaped body and, at a same time, by crushing portions on both sides of said tube-shaped body in a manner so as to be in a plane state in another diameter direction, a hollow body being opened at both ends and having a cross-sectional structure in which said tube-body is crushed and wherein a bag main body is formed by blocking opened portions of said hollow body with end face plates using both sides on which said hollow body is dented in an inside direction and said end face plates as gore portions and; wherein said bag main body is folded in a manner so as to be a flat state by further denting portions on both sides having been dented toward an inside direction of said hollow body and serving as said gore portions and said end face plates and, at a same time, by further crushing portions on both sides in another diameter direction. Furthermore, applicant should note that the method of forming the device is not germane to the issue of patentability of the device itself.

With respect to **claim 14**, the said tube-shaped body of Lindstrom is angularly tube-shaped (Figs. 5 and 6).

6. **Claim 1** is rejected under 35 U.S.C. 102(e) as being anticipated by Enders et al. (U.S. App. 2004/0007856 A1).

Enders discloses an inflator bag for a vehicle occupant restraining apparatus being able to expand and develop by a high-pressure gas filled in said inflator bag and is capable of restraining a vehicle occupant by being expanded and developed, comprising:

- a. a box-shaped bag main body (Element 40) including gore portions (side portions (60)) on surrounding side faces to ensure its height (see, Fig. 2),

wherein, in each of said gore portions, a folded line to be folded toward an inside of said box-shaped bag main body is formed in an intermediate portion in a height direction of each of said gore portions (Fig. 2, side portions of bag) which is used to allow each of said gore portions to be folded, and wherein an overlaid and folded portion is formed in an end of each of said gore portions on each of said surrounding side faces (Fig. 2);

b. with each corner portion of said box-shaped bag main body being sandwiched between one surrounding side face and another surrounding side face adjacent to said one surrounding side face wherein each of said gore portions is folded in a overlaid manner in each of said overlaid and folded portions at a same time when another gore portion on another surrounding side face is folded (Fig. 1-2 and 5-6), and

c. wherein said box-shaped bag main body is folded in a manner so as to be in a flat state when each of said gore portions is folded in a manner to form a valley line along said folded line (Figs 1-2, and 5-6, see *also* Pg. 4, Para. 0045).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. **Claims 4 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kowalski (U.S. 6,158,766) in view of Enders et al. (U.S. 2004/0007856 A1). Kowalski discloses all of the limitations of claim 4 except that said box-shaped bag main body of Kowalski specifically comprises a resin sheet or a metal sheet. Nevertheless, it is old and well known in the art to construct a main body portion of an airbag from a resin sheet or a metal sheet. Additionally, Enders teaches that it is known to use metal sheets in the formation of an air bag. It would have been obvious to one having ordinary skill in the art at the time the invention was made to a resin sheet or a metal sheet, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Moreover, It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the inflator bag to utilize said box-shaped bag main body of Kowalski specifically comprises a resin sheet or a metal sheet based on the teachings of Enders et al. (U.S. App. 2004/007856 A1), so as to create a main body portion that is able to rapidly dissipate heat created by inflation gasses while additionally being strong enough and light weight enough to allow for reliable inflation.

With respect to **claim 11**, Enders additionally discloses the use of an inflator bag used for restraining a leg portion of a seated vehicle occupant which is placed in a lower portion of an instrument panel of a vehicle and expands and develops at a time of being filled with a high-pressure gas at time of sharp reduction of speed of a vehicle. It would have been obvious to one of ordinary skill in the art at the time the invention was made

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to have modified Kowalski such that it was placed on the lower portion of an instrument panel of a vehicle, so as to utilize the device to protect the knees of an occupant.

8. **Claims 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindstrom (U.S. 5,568,938) in view of Kowalski (U.S. 6,158,766). Lindstrom discloses all of the limitations of claim 5. Lindstrom does not specifically disclose that the plates making up said tube-shaped body have unequal wall thicknesses wherein wall thicknesses of its upper-face plate and its lower-face plate both serving as horizontal sides of said tube-shaped body are large and wall thicknesses of its side face plates serving as longitudinal sides are smaller than said wall thicknesses of said upper-face plate and said lower-face plate and wall thicknesses of said end face plates are equal to said wall thicknesses of said side face plates. Kowalski further discloses the use of upper plates that are thicker than the side gore portions (Figs. 2 and 3). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Lindstrom such that the plates making up said tube-shaped body have unequal wall thicknesses wherein wall thicknesses of its upper-face plate and its lower-face plate both serving as horizontal sides of said tube-shaped body are large and wall thicknesses of its side face plates serving as longitudinal sides are smaller than said wall thicknesses of said upper-face plate and said lower-face plate and wall thicknesses of said end face plates are equal to said wall thicknesses of said side face plates, in view of the teachings of Kowalski, so that the upper and lower portions of the inflator bag would have additional protection that would not be needed on the sides, so that the airbag would require less energy to inflate and also to save overall weight in the design.

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9. **Claims 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kowalski (U.S. 6,158,766) in view of Brantman et al. (U.S. 5,695,242). As discussed above Lindstrom discloses all of the elements of claim 1. Kowalski does not specifically disclose that said inflator bag is used for restraining a hip portion of a vehicle occupant which is mounted in a front lower portion of a seat cushion in a vehicle and expands and develops by being filled with a high-pressure gas at a time of sharp reduction of speed of a vehicle to raise a front seat face of said seat cushion which prevents a vehicle occupant being seated on a seat from being moved forward.

Brantman discloses an airbag (Element 13) having structural similarities to Kowalski that is used for restraining a hip portion of a vehicle occupant which is mounted in a front lower portion of a seat cushion (Figs. 1 and 2) in a vehicle and expands and develops by being filled with a high-pressure gas (Element 15) at a time of sharp reduction of speed of a vehicle to raise a front seat face of said seat cushion which prevents a vehicle occupant being seated on a seat from being moved forward (see e.g. Col. 9, Lines 40-45 (discussing crash sensor)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kowalski, such that it were placed on a seat cushion to prevent a vehicle occupant being seated on a seat from being moved forward, so as to create a means for preventing an occupant being seated on a seat from being moved forward that is both reliable and durable, as well as being simple to manufacture.

10. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindstrom (U.S. 5,568,938) in view of Enders et al. (U.S. 2004/0007856 A1).

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As discussed above Lindstrom discloses all of the elements of claim 5. Lindstrom does not specifically disclose that said tube-shaped body is circularly tube-shaped.

Enders discloses use of an air bag similar to Lindstrom having a tube-shaped body of that is circularly tube-shaped (Figs. 1 and 3) according to the embodiment shown in those figures. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Enders to utilize a tube-shaped body that is circularly tube-shaped, so as lessen the amount of edges on the tube body making it less likely that the tube shaped body would tear.

Examiner's Note

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following inventions relate to airbags having some of the claimed features:

- a. Backhaus (U.S. 4,944,529)
- b. Sollars, Jr. (U.S. 5,482,318)
- c. Soderstrom (U.S. 6,832,776 B1)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Rocca whose telephone number is 571-272-5191. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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